

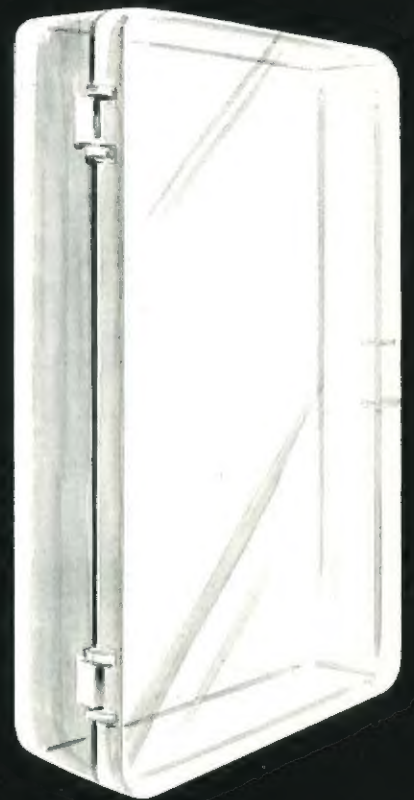
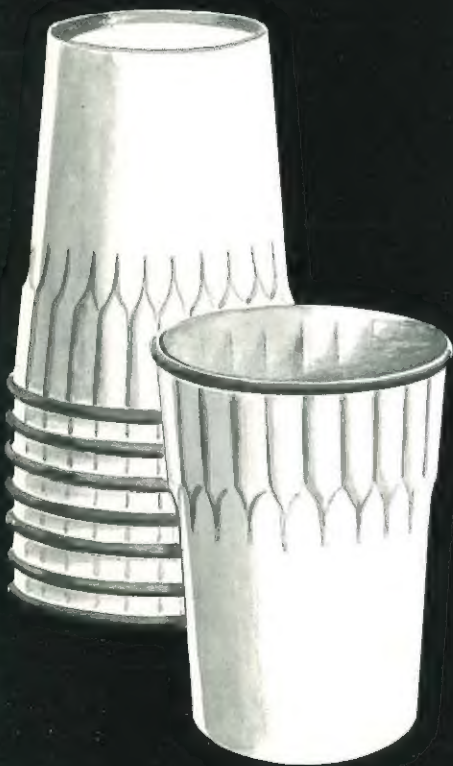
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A GUIDE TO  
PROFITABLE PACKAGING WITH

**SHELL**

# Polystyrene



Better-selling packages take shape in

**SHELL**

# Polystyrene

Polystyrene has long been the workhorse of the packaging industry, and Shell specialists can make it work for *you*. They'll help you design the package and pick the polymer that's best for your application — all with an eye to the *ultimate* in plastics economy. Shell offers general purpose, easy flow and modified impact grades — will tailor-make a polymer for you if needed.

Shell can give you sound advice on colors, too. It maintains an up-to-date library of attractive colors and a staff of color experts who can give your package maximum merchandising appeal.

Look over the properties and applications below in terms of *your* package and call Shell today. Our District Offices are listed on the back cover for your convenience.

**ECONOMY** — Disposable ice cream dish of Shell Polystyrene is colorful, sturdy, costs very little.



**STRENGTH** — Drinking cups, vacuum formed of Shell impact polystyrene, are strong and serviceable.



**COLOR** — Handsome jewelers' cases are moldable into intriguing shapes in eye-catching colors.



**CHEMICAL-RESISTANT** — Polystyrene formed sheet resists most foodstuffs, many chemicals.



## TYPICAL PROPERTIES OF SHELL POLYSTYRENES

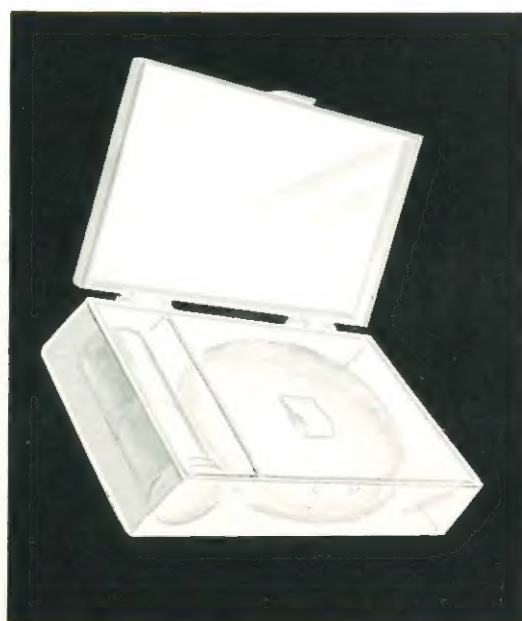
PROPERTIES	General Purpose 300	Easy Flow 303	Medium Impacts			High Impact 321	Chemical Resistant High Impact 345	ASTM Method
			Y-12	310	313			
<b>MECHANICAL</b>								
Tensile Strength, psi	7000	6700	5800	5000	3400	4800	3900	D638-58T
Elongation, %	1.6	1.8	10	14	15	28	26	D638-58T
Modulus of Elasticity, psi (in tension) (x 10 <sup>5</sup> )	4.8	4.85	4.5	4.2	3.0	3.6	3.2	D638-58T
Izod Impact, ½" x ¼" bar (ft lbs/in of notch)	0.30	0.30*	0.48**	0.6	0.7	0.9	1.0	D256-56
Rockwell Hardness (M scale)	90	90	72	64	45	40	35	D785-51
Flexural Strength, psi	—	—	—	9900	7500	5000	4900	D790-49T
<b>PHYSICAL</b>								
Specific Gravity, 73/73°F	1.05	1.05	1.05	1.05	1.05	1.06	1.06	D792-50
Water Absorption (% in 24 hrs)	—	—	—	0.07	—	0.11	—	D570-57T
<b>THERMAL</b>								
Heat Distortion Temperature (°F at 264 psi)	194	184	177	182	165	180	175	D748-56

\* 1/2" x 1/2" bar (D638-58T)

\*\* 1/4" x 1/4" x 2 1/2" bar



**CLARITY** — Economical snap caps of oriented polystyrene carry selling copy while providing maximum clarity.



**RIGIDITY** — Cosmetic container of polystyrene withstands handling and hard knocks—makes a display case for contents.



**GLOSS** — Sparkling good looks of polystyrene give this food container extra sales appeal.

# Shell can give you expert advice and help you get the most for your packaging dollar

It will pay you to call Shell in the *early* stages of package development. Take advantage of the design and engineering experience of Shell specialists – let them show you how to produce the package you need at low cost. The right advice at the start can save you time and money at every step of design, manufacture and marketing. Remember, Shell offers a complete line of polypropylenes, polystyrenes, and polyethylenes and has a depth of experience that can make a profitable difference for you. Call our nearest District Office today!

The information in this brochure is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular purpose.

The properties described herein, although current at time of publication, are subject to change due to process improvements. For latest properties, contact our nearest sales office.  
February 1963

## SHELL CHEMICAL COMPANY

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EDison 3-1400

**EASTERN DISTRICT**  
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HA 8-3800

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Downey, California  
SPruce 3-0601

